

FOLDABLE RADIO TELEPHONE SET WITH ROTARY SELECTOR INTEGRAL WITH FOLDABLE HINGE ELEMENT

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a portable radio terminal and, more particularly, to a portable radio telephone set having a folding and housing control mechanism and a rotary selector for selecting various functions provided in a hinge section for folding and housing purpose.

2. Description of the Related Art

Conventional portable radio telephone sets (hereinafter referred to simply as telephone sets) are not only provided with ordinary telephone functions, but also with an electronic telephone directory function by which telephone numbers and names can be registered, a help function for guiding various functions, an incoming call tone selection function for selecting incoming call tone, and the like, thus being formed as a multi-functional terminal. The conventional portable radio telephone set uses function buttons in order to select such functions. The operation of some terminals has been made easier by making the shape of function buttons different from that of the dial buttons.

When, for example, the electronic telephone directory function is used, first a telephone set user operates a function button for the electronic telephone directory function in order to call a telephone number stored in the electronic telephone directory onto a display section of the portable radio telephone set. Then, the telephone set user operates a function button for selecting the telephone number and a function button for scrolling the registered telephone numbers in order to call the wanted telephone number shown on the display section from among telephone numbers registered in the electronic telephone directory. When the wanted telephone number is confirmed on the display section by the above operation, the user operates a function button for starting a conversation in order to call the other party.

Though the conventional portable radio telephone set is multi-functional, the operation procedure thereof is complex for a user when the series of operations described above is considered. Furthermore, there is the possibility that the greater the number of buttons, the greater the chances that a button may be depressed erroneously when the button arrangement of a present portable radio telephone set is considered.

That is, in view of the complexity of such an operation procedure, it is not easy, as regards a conventional telephone set in which functions are selected by function buttons, to operate various buttons with only one hand while holding the telephone set itself in the same hand.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a telephone set which makes it possible to easily perform various operations required particularly for conducting a radio telephone conversation with one hand while the telephone set itself is being held by the same hand.

It is another object of the present invention to simplify the procedure for selecting or operating a plurality of functions of the telephone set.

It is still another object of the present invention to provide a multi-functional telephone set, the number of buttons thereof being reduced as much as possible.

To achieve the above-described objects, a portable radio telephone set in accordance with the present invention is provided, which portable radio telephone set has a display section, comprising a rotary selector which turns to select various functions. A menu of various functions displayed on the display section is selected when the rotary selector is operated during a non-conversation time, sound volume can be adjusted during a conversation time, the adjusting operation can be performed from both the front and rear sides of the telephone set. The rotary selector and button keys are arranged within the operation range of the thumb, and thus ordinary dial functions, performed by operating the rotary selector and the button keys, are provided.

According to the present invention, since the rotary selector is provided as a telephone terminal, it is possible to easily select a desired function of the telephone terminal with one hand by rotating the selector.

Also, according to the present invention, since the rotary selector is provided in a hinge section of a telephone terminal which is foldable so that it can be housed, it is possible to select a desired function of the telephone terminal by rotating the rotary selector.

Since the rotary selector is provided in the hinge section of the telephone terminal which is foldable so it can be housed, the hinge section can be of any size, and the mechanical strength of the hinge section is increased. The provision of the rotary selector results in a reduction of the number of key buttons for performing multiple functions, or the like, making it possible to more effectively use the space where the telephone set is arranged.

Also, by arranging the rotary selector provided in the terminal so as to be rotatable and slidable along the shaft of the hinge, the rotary selector can be used as a cursor. Further, by moving the cursor on the display section up and down, or from side to side in linkage with the rotary selector in this way, various functions of a portable telephone set can be performed, and it is made easy to perform an operation with one hand.

The above and further objects and novel features of the invention will more fully appear from the following detailed description when the same is read in connection with the accompanying drawings. It is to be expressly understood, however, that the drawings are for the purpose of illustration only and are not intended as a definition of the limits of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view illustrating the appearance of a portable radio telephone set in accordance with an embodiment of the present invention;

FIG. 2 is a perspective view illustrating a state in which the portable radio telephone set shown in FIG. 1 is used while it is held with one hand;

FIG. 3 is a perspective view illustrating a state in which the portable radio telephone set is used during a radio conversation state as it is seen from the outer side (the rear side) thereof;

FIG. 4 is an illustration of a one-hand operation method in a state in which the radio telephone set is held with one hand;

FIG. 5 is a partial sectional view of a joint portion of the radio telephone set in accordance with the embodiment of the present invention;